

DISCUSSION OF THE AMENDMENT

Due to the length of the specification herein, Applicants will cite to the paragraph number of the published patent application (PG Pub) of the present application, i.e., US 2006/0048871, when discussing the application description, both in this section and in the Remarks section, *infra*, rather than to page and line of the specification as filed.

Claim 1 has been amended as supported in the specification by Fig. 5 and paragraphs [0085]-[0088]. Claim 2 has been amended to be consistent with the amendment to Claim 1. Claims 8 and 9 have been amended by replacing the term “contains” with the equivalent --comprises--.

No new matter is believed to have been added by the above amendment. Claims 1, 2 and 4-9 remain active; Claims 10-22 stand withdrawn from consideration, at least some of which are rejoinable.

REMARKS

Applicants thank the Examiner and the Examiner's supervisor for the courtesy extended to Applicants' attorney during the interview held August 7, 2008, in the above-identified application. During the interview, Applicants' attorney explained the presently-claimed invention and why it is patentable over the applied prior art. The discussion is summarized and expanded upon below.

The rejections under 35 U.S.C. § 103(a) of Claims 1-7 as unpatentable over JP 10-087390 (Yamoto et al), and of Claims 8 and 9 as unpatentable over Yamoto et al in view of US 2005/0162607 [sic, US 2006/0162607] (Kodama et al), are respectfully traversed.

As recited in above-amended Claim 1, an embodiment of the present invention is a gas generating agent wherein the gas generating agent is a tubular molded article formed with a non-azide-based composition, and both ends of the molded article are squashed, thereby forming non-squashed parts and squashed parts, the squashed parts having an external thickness less than the external thickness of the non-squashed parts, and an inner diameter d of an internal space of the molded article being less in the squashed parts than in the non-squashed parts, whereby said molded article, upon ignition, burns at one rate followed by burning at a faster rate.

This embodiment is demonstrated by Fig. 5 in the specification herein.

The Examiner finds that while Yamoto et al does not explicitly disclose the squashing of both ends of their formed article, yet finds that "because the skilled artisan would appreciate that cutting the extruded tube before it is dry, while it is still semi-solid and pliable, would necessarily squash both ends by applying two forces to the outside of the tube." The Examiner then holds that it would have been *prima facie* obvious "to modify the teachings of [Yamoto et al] by squashing both ends of the extruded article by cutting the tube into lengths of desired size."

In reply, and as Applicants' attorney pointed out during the above-referenced interview, Yamoto et al discloses **only** one embodiment, and that is a cylinder having constant internal and external diameters throughout its length as shown in the sole figure therein, i.e., having **no** squashing. Any significant squashing of the ends of Yamoto et al's cylinder would necessarily defeat Yamoto et al's objective. Absent the present disclosure as a guide, there would have been no motivation to modify Yamoto et al's cylindrical structure in any way, let alone to achieve at least one of the benefits of the present invention, i.e., an initial slow burning rate upon ignition followed thereafter by a faster burning rate, which advantage is now recited in the claims. Nor could one of ordinary skill in the art have predicted the other advantages inherent in the presently-claimed invention, as described in the specification herein.

In response to Applicants' argument that Yamoto et al's air-bag may adversely affect passengers because of its high combustion performance, the Examiner finds it "not persuasive because the rate of combustion is controlled by several factors."

In reply, one factor is necessarily the shape of the gas generating agent, even if everything else is the same. Indeed, Figs. 6 and 7 herein demonstrate such a difference.

In response to Applicants' argument that the presently-claimed gas generating agent can be reduced in size and weight and have a higher compression strength due to squashing both ends of the molded article, the Examiner finds the argument not persuasive "because the bulk density can be controlled by methods other than squashing the ends and a higher compression strength does not allow things to fit closer together, and further the skilled artisan would appreciate that a cylinder has one of the highest compression strengths of any shape along its central axis. Further still, applicants have not shown that the composition of the reference will change its shape over time or the composition of the instant invention will not."

In reply, and as discussed above, Applicants have shown that the difference in shape between the presently-claimed gas generating agent and Yamoto et al results in different, and better, properties.

Regarding the comparative data in the specification, the Examiner finds that there is not a great difference between the present invention and a gas generating agent not having squashed ends.

In reply, and as described in the specification at paragraph [0100], the comparative data in Figs. 6 and 7 shows an amount of difference between the present invention and the prior art such that its significance would be appreciated by persons skilled in the art, for reasons discussed in the previous response.

Kodama et al has been relied on simply for a disclosure of particular gas generating agent materials, but does not remedy the above-discussed fundamental deficiencies of Yamoto et al.

For all the above reasons, it is respectfully requested that the rejections be withdrawn.

All of the presently-pending and active claims in this application are now believed to be in immediate condition for allowance. The Examiner is respectfully requested to rejoin the non-elected process claims, and in the absence of further grounds of rejection, pass this application to issue with all active and rejoined claims.

Respectfully submitted,

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